

ON TWO NEW GENERA OF CHALCIDIDÆ FROM
BORNEO.

By P. CAMERON.

ELEMBA, gen. nov.

Pronotum quadrate, of equal width, narrower than the mesonotum, wider than long. Mesonotum without parapsidal furrows, the mesosternum bordered by a distinct lateral furrow. Scutellum large, longer than wide, its sides bordered by a distinct crenulated furrow; it is not narrowed at the base; its apex rounded, only slightly narrowed, and with an oblique rounded slope. Head as wide as the thorax; the temples distinct, roundly narrowed. Head longer than wide; the malar space not quite half the length of the eyes, and with a narrow but distinct furrow above. There are two longish deep foveæ on the lower part of the face in the centre. Mandibles large, broad, short, furrowed in the middle at the apex, probably bidentate. Antennæ apparently twelve-jointed; the apical joint flattened, longer than the preceding; the front is excavated to receive the scape, and has a stout keel on its lower part. Abdomen distinctly narrower than the thorax, flat above, the basal two segments incised at the apex, of nearly equal length; the sheaths of the ovipositor broad, covered with stiff hairs, half the length of the abdomen. Legs moderate, the femora not dilated to any extent; the middle calcaria long, stout, the posterior short, slender. Marginal branch in fore wing elongate, gradually narrowed to near the apex of the wing; stigmal branch moderately long, curved, almost bifid at the apex. The antennæ are slender, the flagellum is of equal width; the first joint of the flagellum is more than twice longer than wide, twice the length of the following, which is shorter than the next. The basal joints of the flagellum are covered with short, stiff, black hair. On the apex of the mesopleuræ, above the middle coxæ, is a triangular space bounded by deep furrows. Tegulæ large, conchiform. Abdomen (not counting the ovipositor) is long, narrow, narrowed towards the apex, the sides not keeled. Eyes bare. Labrum hidden. The first abdominal segment is much longer than the others. The metanotum is not keeled; the centre is bounded by two furrows. The head is not narrowed in front.

This genus comes close to *Epistenia*, which may be known from it by the presence of parapsidal furrows, and by the basal abdominal segments being transverse, not incised.

Elemba levicollis, sp. nov.

Head and thorax dark blue, the apex of mesopleuræ and the metanotum green, abdomen dark purple above, the sides blue, the apices of the apical segments more or less coppery; antennæ black; legs black, the fore legs tinged with violaceous, the fore coxæ dark blue, the four hinder green, thickly covered with short white pubescence. Wings hyaline, broadly, slightly tinged with fuscous at the apex; the nervures black. ♀. Length, 11 mm.; ovipositor, 4 mm.

Kuching, October (John Hewitt).

Face strongly, deeply punctured, the part in the centre below between the furrows finely, closely punctured; the lower part of the sides of the front is smooth, with two or three large punctures in the centre; the upper is closely, transversely punctured; the central depression smooth, its upper part coppery tinted; the ocellar region is sparsely, weakly punctured and coppery tinted, the rest of the vertex is more strongly punctured. Upper orbits above weakly, below strongly punctured. Prothorax smooth. Mesonotum covered strongly with round deep punctures, the edges of the punctures sharply raised; down its centre is a dark violaceous band which becomes narrowed towards the apex. The punctuation on the scutellum is closer and runs into longitudinal striæ, the apex is closely, transversely striated. Metanotum in the narrowed centre with some striæ, the dilated sides depressed, smooth. Mesopleuræ strongly punctured above, more weakly below; the furrow at the base is widened and curves obliquely downwards; this down branch is wider than the longitudinal one and is smooth; on the apex the punctuation is finer and closer, and runs into striæ, this posterior part being separated from the rest by a shallow furrow. Back of abdomen smooth, the sides finely aciculated.

PENTACHALCIS, gen. nov.

Hind femora with three large and two small teeth. Middle tibiæ without spurs. Antennæ (including the ring-joint) twelve-jointed. Apex of scutellum with a distinct bluntly rounded projection, of which the sides and apex are clearly raised above the basal part. Metanotum untoothed, but with a small rounded projection on the lower part of the sides. Malar space long, nearly as long as the eyes. Abdomen sessile, not truncated at the base. Hind coxæ almost as long as the femora, which are longish oval; the penultimate joint of the hind tarsi is as long as the preceding two united, and is thicker than them; the femora extend beyond the apex of the abdomen. The antennæ are placed distinctly above the lower part of the eyes; the scape extends above the vertex. Marginal and post-marginal veins long, the latter much thickened; the stigmal branch short, thick.

Comes near to *Pseudochalcis*, Kirby. *Pentachrysis* is the sole described genus in the group with only five teeth on hind femora.

Pentachalcis erythronota, sp. nov.

Black; the mesonotum and scutellum bright red; the four anterior knees, the base and apex of the four front tibiæ, and all the tarsi of a duller, more testaceous red. Hind femora with three longish, clearly separated teeth on the base, and two short stumpy ones on the apex, the apical of which is broader than the penultimate. Wings almost hyaline, the apex broadly fuscous violaceous; the nervures black. Basal three antennal joints bare, shining; the others opaque, thicker, covered with a microscopic down, the fourth slightly but distinctly longer than the fifth. Face strongly, deeply punctured, more or less reticulated; in the centre of the face is a longitudinal keel, equally distant from the top and bottom; the vertex and sides of the front are similarly punctured-reticulated, as is also

the occiput. The outer edge of the outer orbits and the lower edge of the malar space are stoutly keeled, the latter being transverse. Pro-, mesonotum, and scutellum punctured-reticulated closely, but not quite so strongly as the face. Apex of scutellum ending in a projection, wider than long, depressed, its sides and apex stoutly keeled, the sides oblique, the apex transverse. Metanotum coarsely reticulated; the sides below end in a short rounded tooth. Pleuræ coarsely punctured, the mesopleuræ with a wide, smooth, oblique depression commencing below the tegulæ; its upper part is smooth; the base with a row of foveæ, the apex with a broken keel; the lower part is stoutly striated, the striæ being clearly separated. Abdomen smooth, the apical three segments strongly punctured at the base. The tibiæ and tarsi are thickly covered with a stiff white pubescence. ♂. Length, 6 mm.

Kuching (John Hewitt).

The ocelli prominent, in a curve. Mesonotum trilobate. The hind wings are faintly clouded at the apex.

NOTES AND OBSERVATIONS.

CADDIS-FLY EATING APHIDES.—Mr. Arkle would confer a favour on entomologists if he would secure a specimen of the caddis-fly that eats aphides (*antea*, p. 92), get it named, and describe the mouth-parts by which it performs this feat. — T. A. CHAPMAN; Betula, Reigate.

ABERRATION OF AMPHIDASYS BETULARIA.—Referring to Mr. Mansbridge's remark (*antea*, p. 112) that in the buff form of *A. betularia* obtained by the Middleton collectors the ground-colour of the wings is white, I may state that I have eight of those specimens, and that in no case is the ground-colour white but ochreous, like the variety he describes. — A. B. FARN; Breinton Lodge, Hereford, May 16th, 1908.

THE LONG LIFE OF SCOLIOPTERYX LIBATRIX.—On May 1st I took a specimen of *Scoliopteryx libatrix* at rest. It was in excellent condition, as, owing to its torpid habits, seems to be usual with this species whenever captured. But the date leads me to inquire if some of your correspondents will give the latest dates on which they have taken *libatrix*, in order to estimate the average length of life of the imago. My only note of breeding the insect is the emergence on August 9th, 1886, of a specimen from a pupa found by chance in collecting other things. This, however, suggests the possibility of ten months' hybernation in the perfect state for this species.—FRANK E. LOWE; St. Stephen's Vicarage, Guernsey.

FOOD OF GLOW-WORM.—On May 4th not far from Oxshott Station I picked up a specimen of the mollusk *Helix cantiana*, and on examining it noticed a glow-worm without wings (probably a larva)